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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/685,558

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W. Todd Daniell

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EXAMINER

PHAN, TUANKHANH D

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/685,558	Applicant(s) DANIELL ET AL.	
	Examiner TUAN-KHANH PHAN	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/23/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendment, filed 4/02/2008, has been entered and acknowledge by the Examiner. Claims 1-20 are pending.

Response to Arguments

Applicant's arguments, filed 4/02/2008, have been fully considered but they are not persuasive.

Issue I. The Applicants argues (point **A**) that claim 1 (also the same as **B to F** arguments), as amended, is allowable over the cited art for at least the reason that neither Horvitz nor Addison, alone or in combination, discloses, teaches, or suggests a "method comprising..., generating a phonetic equivalent of the word from the email message" as recited in claim 1, as amended.

Response I. The Examiner would like to point out that a combination of both references discloses method comprising generating a phonetic equivalent of the word from the email message. In fact, generating and tokenization to produce token equivalents and content classification equivalents from email messages are disclosed (Horvitz, col. 4, lines 40-46). In addition, parsing and generating words and text as phonetic equivalents and tokenization are also taught (Addison, ¶ [0011]). For the motivation as provided, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine both references to produce the predictable results.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-9 and 11-15 are rejected under 35 U.S.C. 103(a) unpatentable over Horvitz et al. (US Pat. 6,161,130), hereinafter Horvitz, in view of Addison et al. (US Pub 2003/0144842), hereinafter Addison.

Regarding claims 1, 8-9 & 15, Horvitz teaches a method comprising the steps of: receiving an email message having a word from the email message (i.e. **receiving incoming message stream**, abstract);

tokenizing the equivalent of the word to generate a token representative of the phonetic equivalent (i.e. **tokenizing to as words, letters, and other character strings**, col. 11, ll. 55-65); and

determining a spam probability from the generated token (col. 8, ll. 55-67; col. 13, ll. 5-15);

but does not explicitly disclose generating a phonetic equivalent of the word (i.e. breaking each input message into its constituent tokens, col. 11, ll. 48-56);

However, in the same field of generating phonetic words, Addison discloses generating a phonetic equivalent of the word (¶ [0011], phonetically parsed using phonetic parsing rule).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate determining a spam probability taught by Horvitz into generating token phonetic words taught by Addison to filter text and the sequence in response to the context and changes manipulated by spammers.

in response to determining the spam probability from the generated token, assigning whether the token exists in a database of tokens (Figure 3A, '303 and '370'; **SVM classifier updates and/or assigns probabilistic measure to the tokens**);

in response to determining that the token exists in the database of tokens, assigning a probability value indicative of spam to the token (Horvitz, Figure 3A, '303 and '370').

in response to determining that the token does not exist in the database of tokens, updating a probability value indicative of spam to the token (Figure 3A, '303 and '370').

Regarding claims 4, 11 and 17, Horvitz in view of Addison further teaches the method of claims 1, 9 and 15, wherein the step of determining the spam probability comprises: assigning a spam probability value to the token; and generating a Bayesian probability value using the spam probability value assigned to the token (Horvitz, col. 8, ll. 63-67; col. 13, ll. 10-15).

Regarding claims 5, 12 and 18, Horvitz in view of Addison teaches the method of claims 4, 11 and 17, wherein the step of determining the spam probability further comprises: comparing the generated Bayesian probability value with a predefined threshold value (Horvitz, abstract).

Regarding claims 6, 13 and 19, Horvitz in view of Addison further teaches the method of claims 5, 12 and 18, wherein the step of determining the spam probability further comprises: categorizing the email message as spam in response to the Bayesian probability value being greater than the predefined threshold (Horvitz, col. 13, ll. 60-67).

Regarding claims 7, 14 and 20, Horvitz in view of Addison further teaches the method of claims 5, 12 and 18, wherein determining the spam probability further comprises: categorizing the email message as non-spam in response to the Bayesian probability value being not greater than the predefined threshold (Horvitz, col. 13, ll. 60-67).

Claims 2-3, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horvitz in view of Addison, and in further view of Sahami et al. (A Bayesian approach to Filtering Junk E-mail), hereinafter Sahami.

Regarding claims 2, 10 and 16, Horvitz in view of Addison teaches the method of claims 1, 9 and 15, wherein the step of generating the phonetic equivalent of the word comprises: identifying a string of characters, the string of characters including a non-alphabetic characters (col. 11, ll. 55-65, punctuation mark or the like; col. 8, line 20-30. non-word distinctions); and

While Horvitz teaches removing all features that appear less times, Horvitz in view of Addison do not explicitly teach removing the non-alphabetic character from the string of characters. However, in the same field of endeavor, Sahami shows removing the non-alphabetic character (non-alphanumeric characters, Figure 2) from the string of

characters (eliminate words/strings that having little resolving power in email; p. 3 col. ¶ 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the disclosure of Horvitz in view of Addison with that of Sahami to uniquely reduce the features set for comparison to improve message spam identifications.

Regarding claim 3, Horvitz in view of Addison and further in view of Sahami teach the method of claim 2, wherein the step of removing the non-alphabetic character comprises: locating a non-alphabetic character within the string of characters, the non-alphabetic character (non-alphanumeric characters [Sahami, Figure 2] or punctuation marks or the like [Horvitz, col. 8, ll. 20-30] encompasses all the character strings below) being at least one selected from the group consisting of: " (quote); ` (single quote); ! (exclamation mark); @ (at); # (pound); \$ (dollar); % (percent); [circumflex over ()] (caret); & (ampersand); * (asterisk); ((open parenthesis);) (close parenthesis); .sub.-- (underscore); - (hyphen); + (plus); = (equal); .backslash. (backslash); / (slash); ? (question mark); (space); (tab); [(open square bracket);] (close square bracket); [(open bracket);] (close bracket); < (less than); > (greater than); , (comma); : (colon); ; (semi-colon); and . (period).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN-KHANH PHAN whose telephone number is (571)270-3047. The examiner can normally be reached on 4/5/9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Hung T Vy/

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Primary Examiner, Art Unit 2163